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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,922	02/14/2001	Kari Einamo	800.0320.U1 (US)	1058
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EXAMINER				
CHO, UN C				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/762,922

Applicant(s)

EINAMO, KARI

Examiner

UN C. CHO

Art Unit

2617

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

* In view of the Pre-Appeal Brief filed on 2 October 2009, PROSECUTION IS
HEREBY REOPENED. A new ground of rejection is set forth below.

Response to Arguments

1. Applicant's arguments with respect to claims 1 – 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 2 – 6, 8, 9, 11, 12, 14 – 17 and 19 are objected to because of the following informalities:

Claims 2 – 6 recite "A method" it should recite --The method-- instead.

Claims 8, 9 recite "A system" it should recite --The system-- instead.

Claims 11, 12 recite "A network" it should recite --The network-- instead.

Claims 14 – 17 recite "A network" it should recite --The network-- instead.

Claim 19 recites "An apparatus" it should recite --The apparatus-- instead.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Remy (US 6,091,950).

Regarding claim 1, Remy teaches transmitting and receiving signaling messages in a functional entity (a group of protocol analyzers Fig. 2 element 21 for receiving and transmitting signaling messages) for subscriber mobility management in a mobile communication system (in order to achieve permanent monitoring of the network the group of protocol analyzers are fixed to the network; Col. 4, lines 29 – 43 and Col. 8, lines 37 – 55); receiving a trace command in said functional entity (since there are multiple protocol analyzers 221 – 223 within the group 21 it is inherent to one of ordinary skill in the art to recognize that each pre-programmed protocol analyzers are capable of monitoring a particular interface respectively, thus each protocol analyzers have programmed within a trace command), the command identifying at least one subscriber (interface) whose signaling messages are to be traced (the group 21 records signaling information traveling through at least one interface; Col. 8, lines 37 – 43) and indicating a tracer (signaling data base; Fig. 2, element 24) to which information obtained during tracing is sent (the group 21 transmit the signaling information towards the signaling data base 24; Col. 8, lines 53 – 55); starting tracing in the functional entity, wherein said tracing comprises sending to the tracer a copy of a signaling message related to the subscriber to be traced in response to receiving or transmitting the signaling message in the functional entity (the group 21 is permanently fixed to the network, thus inherently starts recording when signaling is detected at the interfaces),

wherein the copy of the signaling message sent to the tracer is identical to the signaling message of the subscriber (the protocol analyzers record the signaling messages that travel through the interfaces and the recorded signaling messages are sent to the data base 24; Col. 4, lines 29 – 43 and Col. 8, lines 37 – 55).

Regarding claim 2, Remy teaches wherein the trace command also indicates the type of the signaling message to be traced (the group 21 is capable of recording signaling information traveling through at least one interface of one of the following types of interfaces: Abis, A, "CCITT signaling system No. 7" and MAP; Col. 8, lines 37 – 43), and the copy of the signaling message is sent only if the signaling message is of the type to be traced (the data base 24 receives signaling information of the type mentioned above in a centralized manner; Col. 8, lines 37 – 55).

Regarding claim 3, Remy teaches wherein tracing starts from the start message of a dialogue related to the subscriber to be traced (the group 21 records signaling message that travel through these interfaces, thus it is inherent to one of ordinary skill in the art to recognize that it will only start recording the signaling message if it has detected that the message is traveling through these interfaces; Col. 4, lines 29 – 43).

Regarding claim 4, Remy teaches wherein tracing of the subscriber's signaling message stops in response to the fact that the dialogue which started tracing ends (the group 21 records signaling message that travel through these interfaces, thus it is inherent to one of ordinary skill in the art to recognize that it will only start recording the signaling message if it has detected that the message is traveling through these

interfaces and inherently stop recording if there is no signaling message traveling through these interfaces; Col. 4, lines 29 – 43).

Regarding claim 5, (Remy teaches receiving a stop command of tracing in the entity, the command indicating the subscriber whose signaling message tracing is to be stopped, and stopping tracing of the signaling messages related to said subscriber (Remy discloses that it is possible to perceive the operation of the network from the viewpoint of the operator, the person who manages the network, thus it is inherent to one of ordinary skill in the art to recognize that if the operator wants to stop recording signaling messages for a particular interface then the operator will be able to do so; Col. 3, lines 29 – 47).

Regarding claim 6, Remy teaches wherein the signaling messages of the MAP protocol are traced (Col. 4, lines 29 – 43).

Regarding claims 7, 10, 13, 18 and 20, the claims are interpreted and rejected for the same reason as set forth in claim 1.

Regarding claims 8, 11, 14 and 19, the claims are interpreted and rejected for the same reason as set forth in claim 2.

Regarding claim 9, Remy teaches wherein the signaling messages to be traced are messages of the MAP protocol (Col. 4, lines 29 – 43), and the network element (the group 21) is arranged to start sending copies of the signaling messages (recorded signaling messages are sent to data base 24; Col. 8, lines 37 – 55) related to the subscriber (interface) in response to a dialogue of the MAP protocol (in response to inherently detecting that signaling messages travel through the MAP interface) which

starts after the trace command and is related to the subscriber to be traced (as it has been shown above, the protocol analyzers have inherently been pre-programmed to record signaling messages when signaling messages travel through the interfaces).

Regarding claim 12, Remy teaches further comprising a MAP entity which is responsive to the reception means and comprises separation means and means for sending the copies (the group 21 is composed of a plurality of protocol analyzers 221 – 223, thus it is inherent to one of ordinary skill in the art to recognize that one of the protocol analyzers is in charge of recording signaling messages traveling through the MAP interface and transmit the recorded signaling message to the data base 24; Col. 8, lines 37 – 55).

Regarding claim 15, the claim is interpreted and rejected for the same reason as set forth in claim 12.

Regarding claim 16, Remy teaches that the network element (the group 21) comprising a processor configured to contain the unit and the application part (PC type microcomputers; Col. 8, lines 55 – 65).

Regarding claim 17, Remy teaches wherein the network element is one of a mobile switching center, home location register and visitor location register (Col. 4, lines 26 – 28).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to UN C. CHO whose telephone number is (571)272-7919. The examiner can normally be reached on 9:00AM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/UN C. CHO/
Examiner, Art Unit 2617